Stability in the homology of Torelli groups

Abstract:

The Torelli subgroups of mapping class groups are fundamental objects in low-dimensional topology, through some basic questions about their structure remain open. In this talk I will describe these groups, and how to use tools from representation theory to establish patterns their homology. This project is joint with Jeremy Miller and Peter Patzt. These “representation stability” results are an application of advances in a general algebraic framework for studying sequences of group representations.